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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,092	11/13/2003	Lawrence J. Karr	50037.0065USD4	9493
27488	7590	03/08/2006	EXAMINER	
MERCHANT & GOULD (MICROSOFT)			NGUYEN, DUC M	
P.O. BOX 2903			ART UNIT	PAPER NUMBER
MINNEAPOLIS, MN 55402-0903			2600	

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/714,092	Applicant(s) KARR ET AL.	
	Examiner Duc M. Nguyen	Art Unit 2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-33 and 44-59 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 30-33 and 44-59 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims **31-32, 51-52, 58** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 31, 51, the claims recite the limitation of "adding local content information to the broadcast data", since the specification fails to describe the above limitation, it is not clear what "information" is referred to as "local content information", or what is included or excluded by the claim language, the claims are an omnibus type claim.

As to claim 32, 52, 58, the claims recite the limitation of "adding application information to the broadcast data", since the specification fails to describe the above limitation, it is not clear what "information" is referred to as "application information", or what is included or excluded by the claim language, the claims are an omnibus type claim.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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4. Claims **31-32, 51-52, 58** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The claims recite the limitation of "adding local or application information to the broadcast data", this "adding" limitation is **never** described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims **30-32 50-52, 56, 58-59** are rejected under 35 U.S.C. 103(a) as being unpatentable by **Gaskill (US 5,440,559)**.

Regarding claim **30**, **Gaskill** discloses a method of re-broadcasting data transmitted over a paging network, comprising:

- receiving at a localcast transmitter said transmitted data (see Fig. 12 and col. 7, lines 10-17);

- locally formatting said transmitted data for local-area wireless transmission (see col. 7, line 52 – col. 8, line 62), wherein it is clear that in order to communicate using IR transceiver in the local mode, the data should be, or inherently, be formatted to IR format from the paging network FM format.
- retransmitting said locally formatting data to a local-area (see Fig. 12 and col. 7, lines 10-17)

Here, since **Gaskill** discloses a paging network (see col. 3, lines 42-45 and col. 7, lines 12-17), and since it is well known that the paging network utilizes FM subcarrier for transmission, one of skilled in the art would recognize that **Gaskill** would obviously, if not implicitly, discloses a FM subcarrier as claimed. Therefore, the claimed limitation regarding FM subcarriers is made obvious by **Gaskill**.

Regarding claim **50**, the claim is rejected for the same reason as set forth in claim 30 above.

Regarding claim **56**, the claim is rejected for the same reason as set forth in claim 30 above, wherein the paging network would inherently comprise a broadcast transmitter (see Gaskill, Fig. 12, ref. 284).

Regarding claim **59**, the claim is interpreted and rejected for the same reason as set forth in claim 30 above.

Regarding claims **31-32, 51-52, 58**, the claims are rejected for the same reason as set forth in claim 30 above. In addition, it is noted that when re-transmitting data received from the paging network in the IR communication link to mobile devices as

disclosed by Gaskill, the IR transceiver of the computer would need to decode the received broadcast data and then modulate the broadcast data in accordance with the IR communication link. By doing so, the header of the re-transmitted data would comprise information such as the identification (ID) of the intended mobile, IR communication protocol. This would read on adding the "local content" or "application" information to the broadcast data as claimed with the broadest reasonable interpretation.

7. Claims **33, 53-55, 57** are rejected under 35 U.S.C. 103(a) as being unpatentable by **Gaskill** (US **5,440,559**) in view of **Logsdon** et al (US **5,890,054**).

Regarding claim **33**, the claim is rejected for the same reason as set forth in claim 30 above. In addition, **Gaskill** discloses a direct mode transmission between mobile devices (see Fig. 7). However, **Gaskill** fails to disclose a re-broadcast mode for mobile devices. However, **Logsdon** discloses a re-broadcast mode for mobile devices (see Abstract, Figs. 1, 5). Since mobile devices in Gaskill can communicate to each other directly, it would have been obvious to one skilled in the art at the time the invention was made to recognize the benefit of the re-broadcast mode for mobile devices in Logsdon as well, to further incorporate Logsdon's teaching to Gaskill for providing re-broadcast mode for mobile devices as well, so that a distress mobile device would still being able to communicate with the computer (localcast device) even though when it roams out of the local area coverage range (see Logsdon, col. 1, line 60 – col. 2, line 12).

Regarding claims **53, 57**, the claims rejected for the same reason as set forth in claim 33 above.

Regarding claims **54-55**, the claims rejected for the same reason as set forth in claim 33 above, wherein it is clear that two mobile devices would communicate to each other when they both are in a localcast mode (i.e, IR communication link)

8. Claims **44-45, 49** are rejected under 35 U.S.C. 103(a) as being unpatentable by **Gaskill** (US **5,440,559**) in view of **Lorang** (US **5,548,814**).

Regarding claim **44**, the claim is rejected for the same reason as set forth in claim 30 above. However, **Gaskill** fails to disclose a locally-unused FM frequency is used for retransmitting data in the local area. However, **Lorang** suggests a locally-unused FM frequency is used for retransmitting data in the local area as a candidate solutions for low power two-way link (see Fig. 11 and col. 10, lines 61-64). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further incorporate Lorang's teaching to Gaskill for utilizing the standard FM architecture as a candidate solutions for low power two-way link as well, so that a common RF front end can be utilized for both local mode and broadcast mode, for cost saving.

Regarding claim **45**, the claim is rejected for the same reason as set forth in claim 44 above. In addition, it is clear that when using FM architecture for both local mode and broadcast mode, a controller would obviously be utilized as disclosed by **Lorang**, for setting a desired transmission frequency (see col. 6, lines 15-20), setting a

desired transmission mode (i.e, localcast mode or broadcast mode), and signal power (see col. 9, lines 40-43 regarding low power and high power).

Regarding claim **49**, Gaskill in view of Lorang would disclose generating an FM frequency output from the transmitted when using standard FM architecture for two link (see Lorang, col. 10, lines 61-64).

9. Claims **46-48** are rejected under 35 U.S.C. 103(a) as being unpatentable by **Gaskill** (US **5,440,559**) in view of **Chadwick** (US **5,168,271**).

Regarding claims **46-48**, the claims are rejected for the same reason as set forth in claim 30 above. In addition, since such features as recited in the claims (i.e, adding correlation, interleaving and format baseband samples) are known features of an encoder/modulator as disclosed by **Chadwick** (see Fig. 2 and col. 4, line 36 – col. 6, line 22), it would have been obvious to one skilled in the art at the time the invention was made to provide the encoder/modulator in Chadwick's teaching to the IR transceiver in Gaskill as well, for improving data reception errors.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Miyake (US 5,903,618), Multimode radio communication system.

Hoff (US 5,168,271), Paging and time keeping system with transmission of time slot identification used for synchronization.

Jokinen (US 5,570,369), Reduction of power consumption in a mobile station.

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Charlier et al (US 6,192,253), Wrist-carries radiotelephone.

11. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(571) 273-8300 (for **formal** communications intended for entry)

(571)-273-7893 (for informal or **draft** communications).

Hand-delivered responses should be brought to Customer Service Window,
Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry concerning this communication or communications from the examiner
should be directed to Duc M. Nguyen whose telephone number is (571) 272-7893,
Monday-Thursday (9:00 AM - 5:00 PM).

Or to Doris To (Supervisor) whose telephone number is (571) 272-7629.

Duc M. Nguyen, P.E.

Feb 28, 2006

